# 2017-2018 BUDGET QUESTION

## *Response to Request for Information*

**DEPARTMENT:** Austin Resource Recovery

**REQUEST NO.:** 148

**REQUESTED BY:** Garza

**DATE REQUESTED:** 8/30/17

**DATE POSTED:** 8/31/17

**REQUEST:** What specific purpose and function is intended by adding cameras and other technology to departmental vehicles? What is the cost per vehicle to add this technology and cameras?

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**RESPONSE:** The purpose of the Vehicle Fleet Technology Upgrade (VFTU) Project is to reduce risk, lower the chance of vehicle incidents, provide accurate customer services, increase transparency of the work performed by ARR operations and increase the accuracy of ARR's billing. The VFTU Project was started this year and involves a contract with FleetMind Solutions.

The FleetMind Solutions software will provide the following essential technology upgrade categories:

- "All-in-One" system automation and integration which will also incorporate existing RouteSmart (Routing Software) and CC&B (Billing System) technologies
- On-Board GPS/AVL (Automatic Vehicle Location) units, touchscreen control displays and various sensors for all collection vehicles
- Work management system software and hardware
- Radio Frequency Identification (RFID) System for all collection vehicles
- Standard, custom, and analytical reporting

Expected key improvements:

Short term

- Automation and integration of routing, billing, AVL, and truck scaling to improve timeliness and accuracy of customer service, billing, and fleet management functions
- Real-time remote monitoring and electronic recording of vehicle trip and diagnostic data
- Personnel performance monitoring
- Integration with cameras for live video monitoring and recording of information both inside and outside of vehicles
- Capability to identify routing improvements
- Capability to assign missed or out-of-cycle collection calls to the nearest route driver
- Capability to interface with RFID technology and Customer Service Request (CSR) software
- Capability to interface with and manipulate both historical databases and current data, extract raw data and generate customizable, user-defined, and/or ad hoc reports

Long-term

- Reduced fuel and maintenance costs
- Carbon footprint reduction
- Optimization of travel patterns for drivers
- Cost effective implementation of expanded trash/recycling collection programs
- Ability to produce more accurate budget projections based on actual operational and vehicle maintenance needs
- Reduction in the number of vehicle collisions and employee injuries
- Reduction in the number of billing errors and disputes
- Increased revenue

The $2.7 million contract with FleetMind Solutions covers the initial software and hardware installation and configuration for ARR's 217 collection trucks and ongoing technical support. ARR estimates the initial setup and installation cost (one-time) at $10,000 per truck and ongoing annual license and support expense at $1,200 per truck.

At this time ARR's curbside collection trucks have anywhere from 1-6 cameras positioned in various locations around the vehicle and can be used in conjunction with the new FleetMind Solutions system for live monitoring and recording of information. The cameras will be specifically used to identify contamination, validate customer cart issues, identify operational hazards such as low wires and tree limbs, and improve staff safety performance. ARR research indicates that at least 5 cameras per vehicle will be required to maximize the benefit of the technology upgrades. Additional camera hardware is not a component of the FleetMind Solutions contract so ARR is in the process of procuring the additional cameras. ARR estimates the cost for equipping all trucks with 5 cameras to be an average (one-time) cost of $1,200 per truck.